

REMARKS

Reconsideration and withdrawal of the examiner's objections under 35 U.S.C. §§102, 103 and 112 is respectfully requested in view of the following remarks.

Information Disclosure Statement

The examiner asserts that the listing of references in the Search Report is not considered to be an information disclosure statement (IDS) complying with 37 CFR 1.98. In response, applicant's herewith submit an IDS in compliance with 37 CFR 1.98 for the examiner's consideration.

Specification-Abstract

The examiner has objected to the abstract of disclosure because the abstract recites three occurrences of "said" in lines 2-4. In response, applicants have amended the abstract accordingly.

35 USC §112

The examiner has rejected claims 2-11 and 15-18 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The examiner asserts the following:

Claim 2 assertedly recites "as hereinbefore defined" in line 3. It is suggested that the phrase be deleted. Claim 2 is now cancelled.

Claim 8 assertedly recites the limitation "the trichlorophenol" (see lines 3-4), "the N-hydroxysuccinimide" (see line 5), "the isoeugenol" (see line 6) and "the menthol" (see line 7). There is insufficient antecedent basis for this limitation with respect to claim 4. It is suggested that each occurrence of the term "the" as stated above be deleted. Claim 8 has been amended according to the examiner's kind suggestion.

Claims 3-7, 9-11 and 15-18 are dependent on claim 2 and inherit the same deficiency. Applicants respectfully submit that the present amendment has addressed the examiner's objections.

35 USC §102

The examiner has rejected claims 1-3, 9-13 and 15-18 under 35 U.S.C. 102(b) as being anticipated by Mooney (US 5,965,517), asserting that Mooney discloses a method of fabric treatment comprising the steps of applying a cross-linking agent comprising a capped polycarboxylic acid (col. 2, lines 15-33) that reduce creasing of the fabric by forming cross-linking via ester bonding (col. 6, lines 26-27) and curing the fabric via ironing or tumble-drying in the temperature range of 140-195°C (col. 6, lines 6-14 and col. 8, Table 3).

Accordingly, the teachings of Mooney anticipate the material limitations of the instant claims.

The examiner has further rejected claims 1-2, 9-13 and 15-17 under 35 U.S.C. 102(b) as being anticipated by Watanabe, et al. (US 4,780,101), asserting that Watanabe, et al., discloses a method of treating cellulose fiber-containing textile product in the steps of applying a cross-linking agent comprising a blocked isocyanate such as hexamethylene diisocyanate (HDI) blocked by phenol (col. 2, lines 64-67 and col. 3, lines 16-27) followed by heat-treating the fabric at an elevated temperature - 110°C (col. 4, lines 42) to cleave the blocking agent. Furthermore, Watanabe, et al., discloses the inclusion of polyethyelene in the composition (col. 4, lines 50-65).

Accordingly, the teachings of Watanabe, et al., anticipate the material limitations of the instant claims.

In response, applicants have amended independent claim 1 to require specific alcohol or imide blocking groups not disclosed or suggested by Mooney or Watanabe, et al. Support for these amendments are found in the claims and specification.

35 USC §103

The examiner has rejected claims 4-8 under 35 U.S.C. 103(a) as being unpatentable over Mooney as applied to the claims above, and further in view of Della Valle, et al. (US 5,676,964). The examiner asserts the following:

Mooney teaches the features as described in claim 3. In addition, Mooney discloses the inclusion of BTCA as the polycarboxylic acid (col. 2, lines 30-33), and alcohol (col. 6, lines 31-34) and a perfume carrier in the composition (col. 6, lines 52-60) but does not explicitly disclose that the alcohol is used as a blocking and odiferous agent. In an analogous art of textile treatment, Della Valle, et al., teaches that it is known to use of menthol as a substituent (col. 9, lines 67) to provide an ancillary perfume component. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method as taught by Mooney, with the inclusion of menthol as a substituent as taught by Della Valle, et al., to provide the ancillary action of the perfume via the capping substituent.

The examiner has rejected claim 14 under 35 U.S.C. 103(a) as being unpatentable over Mooney as applied in the claims above, asserting that Mooney discloses the method according to claim 1 but does not explicitly disclose the cross-linking agent having a molecular weight below 1500 Dalton. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the compositions as taught by Mooney would encompass the claimed ingredients and properties because Mooney teaches the cross-linking agent comprising "1 to 4 carboxyl groups" and "long chain $-C_{12}$, C_{18} , alkyl, alkenyl or acyl groups". The examiner further notes that the USPTO is not equipped to perform laboratory testings and experimental benchworks to measure the properties of the resulting composition. The burden is on the applicant to prove otherwise.

The examiner has rejected claim 18 under 35 U.S.C. 103(a) as being unpatentable over Watanabe, et al., as applied to the claims above, and further in view of Mooney, asserting that Watanabe, et al., discloses the composition according to claim 15 but does not explicitly disclose the composition packaged in the form of a spray. In an analogous art of textile treatment, Mooney teaches that it is known to use a spray packaging to dispense a fabric treatment composition (col. 6, lines 26-27). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the packaging

composition as taught by Watanabe, et al., with the spray packaging as taught by Della Valle, et al., to provide a more diverse and efficient application of the treatment composition to the fabric.

In response, applicants respectfully submit that Mooney (US 5,965,517) discloses a method of treating fabric with a composition comprising a polycarboxylic acid or derivative thereof (abstract). Such a derivative can be an ester, i.e. one or more of the carboxyl groups may be esterified with a short chain C₁-C₄ alkyl or alkenyl alcohol (col. 2, lines 15-18, 27-30) or can be a salt.

The differences between the disclosure of Mooney and current amended claim 1 are that the polycarboxylate crosslinking agent is entirely blocked (i.e. each and every carboxyl group is esterified) by the specific blocking alcohols or imide listed in amended claim 1. The blocking agents listed in claim 1 all were surprisingly found to be good leaving groups (outlined on pg. 5, lines 22-29 of our application) in the claimed method, meaning that the ester bond blocking the polycarboxylic acid is labile. This is in contrast to the alcohols, etc., used to optionally esterify the polycarboxylic acid of Mooney. Mooney therefore teaches away from the use of the leaving groups as presently claimed by reciting different groups and the preferred use of a catalyst (see Col. 3, lines 3-5, 15 to 19 in Mooney).

The Examiner asserts that the teaching of another document (Della Valle et al., US 5,676,964) is sufficient to overcome the differences between the documents. Applicants respectfully disagree. Motivation to modify the teaching of Mooney must come from the analogous prior art or the common general knowledge of the skilled person in the technical field in question. In this case we must again state that the alcohols and imide specified in amended claim 1 are markedly different to the blocking alcohols disclosed in Mooney. Therefore the skilled person must have some clear guidance from another prior art reference to modify Mooney's teachings. Moreover, the skilled person must also be motivated to combine the teachings of the prior art references in the first place.

It is respectfully submitted that a skilled person interested in the field of molecules to crosslink to cellulosic textiles would not be motivated to combine Mooney and Della Valle et al. Della Valle is concerned with the inter and/or intramolecular cross-linking of polysaccharides themselves. Moreover, the technical field outlined in Della Valle are not textile treatment fields.

Della Valle is therefore not concerned with the analogous art of "textile treatment" as asserted by the Examiner.

However, even if the skilled person were to make this combination, he would not arrive at the current invention of amended claim 1 as Della Valle teaches that the alcohols (such as menthol, col. 9, line 67) are reacted with the carboxy polysaccharide (to form an ester), but then the partially esterified polysaccharide is crosslinked with itself or another polysaccharide, leaving the ester intact (i.e the blocking agent is still attached). Della Valle therefore offers no disclosure or suggestion that menthol would be useful as a labile blocking agent for a molecule that will crosslink cellulose.

The skilled person would further have no motivation to specifically pick out menthol from the many seemingly equally useful alcohols disclosed in Della Valle, and apply it to the method of Mooney with any reasonable expectation of success of achieving a cellulosic crosslinking agent which is a thermally labile ester of a polycarboxylic acid absent impermissible hindsight.

Furthermore, there is an incompatibility of the teachings of the two documents. Mooney teaches C₁-C₄ short chain alcohols or salts, whereas Della Valle is asserted to teach menthol, which is not a C₁-C₄ short chain alcohol or salt. Furthermore, Mooney teaches the use of leaving groups that differ from what is claimed. Such differences have not been taught by Della Valle et al., hence the material limitations of amended claim 1 have not been taught or suggested by Mooney and further in view of Delta Valle, et al..

Allowable Subject Matter

Applicant's take note that claim 8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this office action and to include all of the limitations of the base claim and any intervening claims.

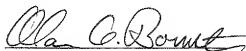
The examiner asserts that the claimed limitation of the polyester comprising one or more of trichlorophenol diester of succinic acid, trichlorophenol diester of BTCA, N-hydroxysuccinimide diester of succinic acid, isoeugenol diester of succinic acid, and menthol diester of succinic acid has not been met by the searched prior arts. In response, applicants respectfully submit that the claims as now amended are both novel and unobvious in view of the prior art of record.

CONCLUSION

In conclusion, claims 1, 8 and 15 have been amended and claims 2-7 and 9-11 have been cancelled as being redundant.

In light of the above remarks, applicants submit that all claims now pending in the present application are in condition for allowance. Reconsideration and allowance of the application is respectfully requested. The examiner is invited to contact the undersigned if there are any questions concerning the case.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Alan A. Bornstein".

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